SDI-Services - Work and Organisation

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by

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Purpose and policy of a SDI service

Any SDI service must base planning of work on an analysis of the user needs and first of all understand what type of users should be served.

Are the users high level scientists? Do they work in basic or applied research? Are they engineers in big, medium or small industries? How many can understand articles in English, French or German etc?

When starting SDI services based on magnetic tapes, it is of vital importance to know how big the potential market is and the number of questions that can be expected in e.g. 2 years.

An SDI service in the field of gas chromatography might have 10 Danish users and possibly cost D. kr. 200,000·00 per profile either on the users or the state's budget. It can be difficult to justify the establishment of such an activity under such unfavourable conditions.

The purpose of an SDI service must be to help a maximum number of customers in utilising in their daily work the sum of world knowledge.

Planning of the Danish SDI service

Denmark has 5 million inhabitants and the biggest Danish industry has less than 10,000 employees. What can be done in order to serve such a community?

In 1965 plans were worked out for establishing an electronic SDI service for industry and research in Denmark. At that time the Documentation Department at Danmarks Tekniske Bibliotek (DTB) had no computer at its disposal and no possibility of getting access to computer-facilities in the years to come. However, at that time the big central computer centre working for the Danish state, I/S Datacentralen (DC), had developed for other purposes a free text search technique called TELETEXT, mainly for searching big files like the central registers of persons and motor vehicles. DC offered to carry out searches for DTB in any data base, and an agreement was made according to which all activities in the software field were taken over by DC, whereas documentation activities were handled by the Documentation Department at DTB. This sharing of work soon proved to be a very sound and effective tool. The Documentation Department can at any time get problems solved due to the combined experience of the staff at DC, now amounting to about 1000 people, while the Documentation Department could concentrate all efforts on offering electronic based services to Danish and later on to foreign customers.

Organising of work

Chemical Titles (CT) from Chemical Abstracts was chosen as the first data base. At the end of 1966 all Danish chemical industries and research centres were offered the new SDI service. Articles in newspapers, radio and TV informed the public about this new activity and simultaneously thousands of sales letters were sent to potential customers. Demonstrations and courses alerted people to the new possibility, based on the world literature, of being kept informed of recent developments in subjects of special interest to the user.

The client was asked to formulate the questions in clear language and if the firm had several questions originating from various engineers a co-ordinating information officer became responsible for the contact with the Documentation Department. The clients were trained in the logic of the system. Accordingly, the client had the final responsibility for correct profile design. Finally the firm or institution had to pay their share of the running costs on DC as no state money was available.

The service was developed to include the procurement of the original articles in the form of hard copies.

In spite of the rather high costs for participating in this SDI service about 150 profiles from industry and research were collected in a surprisingly short time. Many research institutions were hampered by lack of money for this purpose, but, for example, the Technological University of Denmark subsidised the service by paying 70% of the costs from the central budget.

Later on new data bases were added to the SDI service, e.g. Chemical Abstracts Condensates (CA), COMPENDEX and in 1973 Food Science and Technology Abstracts (FSTA).

Economics

From a technical point of view all data bases can be handled in Copenhagen with the TELETEXT general information retrieval system. However, as mentioned, Denmark represents a very limited market for selling specialised services. Therefore, it became clear at an early stage that if a sound economy for running services was to be ensured it was necessary to expand the services to other countries. In order not to harm national activities a policy had to be worked out which, in connection with an expanded Danish activity, would benefit all countries involved.

At the end of the sixties quite a number of countries in Eruope had not entered the field of electronic SDI services. Denmark could, consequently, offer these countries the TELETEXT software, training of personnel and, until they got operational at their national centres, searches with profiles from the countries involved on the same conditions as those set up for Danish customers.

The data base manufacturers agreed in drawing up contracts which would prevent geographical borders from obstructing Danish activities.

In 1972 Denmark had arrangements on the software and on the documentation side with Holland, Belgium, Germany, UK and Italy.

Regarding the mutual benefit by co-operation the Danish policy has been to offer services without profitmaking, but usually on condition that the other countries should run other data bases than the ones searched in Copenhagen. For instance, Copenhagen runs COMPENDEX data base for 5 European countries, including Holland and

vice versa Holland runs the INSPEC data base for Danish clients. From a Danish point of view this European co-operation based on bilateral agreements has been very fruitful and gives a small country an opportunity of participating in a joint action although the national resources are very limited. One of the remarkable features of the Danish offers is the fact that the Datacentralen due to its very comprehensive task as central computer centre for the Danish state administration always has the most modern hardware at its disposal.

In short, the success of the Danish documentation work is based on co-operation between an independant computer centre and a documentation department attached to the National Technological Library.

Pricing policy

From the very beginning all customers were charged according to their share of the computer running costs and they accepted it, although research institutions had severe difficulties in getting the money. Later on the Danish state started subsidising the SDI services to some extent.

It is the general opinion in Copenhagen that some charge is necessary for the following reasons:

1. When writing to people that a new service is at their disposal one must be aware of the fact that industrial managers usually only respect services which cost money. This is a psychological fact which might be a little provocative for classical librarians.

2. There must be a sort of brake on possible misuse of the system. E.g. 1000 chemical students could have great fun in procuring 2 queries each, with let us say 100 keywords per query.

3. By providing e.g. an industrial company with valuable information, which serves the competitiveness of the firm, it is reasonable that some of the costs are paid for.

When the services of a documentation department are based on contacts and are paid for by the subscribers, the documentation staff is compelled to provide the subscribers with an effective service. Even though a customer might be a little difficult to deal with, he would still be entitled to good service due to the contract. If the service was free of charge, it would be easier to neglect him as being a troublesome user.

Besides these points it is evident that it would be useful to receive grants for serving, for example, chemical students in the last year of their study with perhaps one profile without fee. Education in the use of modern methods in information retrieval should be promoted in the European Community and supported by grants from the Governments.

SDI services in future

Magnetic tapes are excellent for current awareness services, but not suitable for retrospective searches. The new on-line services will of course be the right tool for serving people in their needs for retrospective searches. In the coming European or global information retrieval networks the Documentation Department plans to follow the present policy line in relation to industry, research and the community in general.

Some people will communicate their questions by letter, telephone or telex to the Documentation Department and some will prefer to participate in the dialogue with the data bank, whereas big firms will have their own terminals. Charging for these various ways of using the system might, however, become somewhat complicated.

Probably, technical equipment such as slave terminals, transfer of documents by telecommunication etc. will be available on reasonable economic terms and this might lead to a situation where few people will visit the scientific libraries in the old way.

In the future scientific libraries will probably need to devote more manpower and money to efficient and useful documentation work in connection with the operation of SDI services and retrospective searches. The client of the future expects to have his information presented in his working room and this will consequently influence the planning of, and budgets for, information retrieval networks in the years to come.

DISCUSSION

A.J. EVANS: It would seem that costing and administrative problems differ from one country to another. Denmark handles all SDI from one centre whereas in the UK there are 50 Universities each of which is operating as a separate unit, which must affect costing. At Loughborough, Compendex and certain other services are supplied free internally while we pay for external services.

R.A. WALL: What is the basis of costing? The paper says that customers are charged 'according to their share of computer running costs'. How are such costs defined?

H. SKOV: Datacentralen has devised a standard formula for the calculation of cost which can sometimes cause problems. At one time the basis was the number of key-words in the input but it was thought that this might be causing intellectual damage to profiles since the concepts might be insufficiently defined. Now the number of print-out terms is used as the base for charging. The point will be discussed further by Mrs. Berg Hansen in her paper. At the DTB the State subsidises the work of the Documentation Centre.

M. SKALIKS: Did the DTB receive extra money from the government to set up the Documentation Service? Have there ever been problems in dealing with Datacentralen since, in a sense, you are dependent on favours from them, while the DC is not in anyway dependent on DTB.

H. SKOV: In 1965 we met representatives of the DC and explained our ideas. DC then offered to help us without charge. When CAC was introduced the State provided some finance towards setting up the service. We have no problems in dealing with DC. They see the potential interest of the system, and of the future on-line system, especially in connection with satellite systems.

G.A. HAMEL: Have students been stimulated from the beginning to make use of the services offered, or has the service primarily been geared for financial reasons to industry?

H. SKOV: As things stand now professors or research workers decide on the number of profiles that may be run at the University's expense. There is no money available at present for financing educational programs as such. We hope that some state money will be allotted to this.

A.J. EVANS: Is there any willingness for Departments or Institutes to pay for SDI services for their own people? In the UK there is an argument as to whether such services should be paid for by the Departments or by the Central Library.

H. SKOV: It is considered that the research laboratories should pay for information services. Perhaps they should use up to 10% of their budget for this purpose.

S. WESTBERG: Mr. Skov rightly stressed the importance of taking the users' needs as the point of departure in documentation work. Has there been a systematic evaluation of the effect of the system on the users?

H. SKOV: This question will be dealt with by Mrs. Berg Hansen in Paper 8.

S. WESTBERG: What happens if the money for a continued and extended computer-based service is not forthcoming? The LIBRIS project in Sweden is regarded by the authorities as a means for rationalisation of staff and reducing costs. Librarians consider that it should lead to a better service to users and in that case would lead to increased costs.

H. SKOV: The question is really how high a priority the State assigns to further developments such as an on-line service. For example a relatively poor country such as Spain can find the money for 2 ESRO terminals in Madrid. It can be a question of allocation from the total fund and hence developments in this direction could reduce the amount available for expenditure on the more traditional aspects of libraries.

M. WALSER: Who is responsible for formulation of the profiles?

H. SKOV: Ideally the system is explained fully to a new customer who can then formulate his own queries. In some cases the Library Staff may do the profile and all intermediate types of situation can exist according to circumstance.

P. LINN: Would Mr. Skov please indicate the proportion of profiles from industry and what the effect of raising/lowering costs has been on the numbers of users?

H. SKOV: As far as the chemical services are concerned the ratio is approximately 50:50. With Compendex most customers come from industry. We have found that small increases are accepted by users if they are already satisfied. Prices for the Chemical Services have varied over the years from D.kr 400→600→800→500. Now the economic squeeze is affecting the position but we have found that more people are continuing their profiles than might be expected. We think this may be because users are accustomed to paying for the service and do not expect it to be run on an uneconomic basis.

P. LINN: What was the reason for the reduction in price?

H. SKOV: This was due to a change from charging by input terms to charging per output line. With an effective search strategy the number of output lines can often be reduced.

V. WEHEFRITZ: Would Mr. Skov please tell us a little more about the training programme for people in other countries who are using your SDI services?

H. SKOV: The training programmes are quite informal and without fee. Training for handling profiles is done within a few days while for handling programs it may take up to 3 months. The Netherlands were the first country to be involved and they sent someone who spent 3 months at DC working on Software.

M. SKALIKS: The future of this field lies in the development of on-line services. This may need a new policy for libraries on the training of staff and create a necessity to re-educate both users and those who supply the finance.

H. SKOV: We foresee complications arising. It is bound to involve decentralisation with, for example, firms like Shell and Unilever operating independent terminals. It will also be necessary for terminals to be available in the Library for use by medium-size firms who should be charged for this facility. The new development will have a considerable influence on the situation in scientific libraries. We expect on-line experience to have a big impact on user mentality.